

***Examiner's Amendments***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Brush (Reg # 34,557) on November 16, 2011.

Claim 12 is canceled. Claims 13, 19, 23-24 have been amended as follows:

12. (Canceled)

13. (Currently Amended) The synchronization process according to claim 19, wherein the principal channel or the supplementary channel also transmit(s) information about a mode of transmitting sub-frames on the supplementary channel, said synchronization at frame level of the supplementary channel also depending on said information about the transmission mode.

19. (Currently Amended) A synchronization process by a terminal of a supplementary channel associated with a symmetric two-directional principal channel, said supplementary channel and said symmetric two-directional principal channel being different in nature and being implemented by a same base station,

Art Unit: 2617

said symmetric two-directional principal channel comprising a principal uplink channel and a principal downlink channel, particularly for low or medium speed transmission of signalling and control data and information, said supplementary channel being assigned to the downlink only, particularly for transmission of data at high speed, making use of a multicarrier technique for distribution of data in the time/frequency space, and with a sub-frame type structure, wherein the process comprises:

a) synchronizing the supplementary channel at sub-frame level, wherein synchronizing is performed by the terminal and includes the following steps:

1) detecting, by the terminal, a determined time ( $t_0$ ) on the principal downlink channel; and

2) obtaining, by the terminal, the beginning of a sub-frame of the supplementary channel, by offsetting the determined time ( $t_0$ ) detected in 1) by a time interval with a determined duration not equal to zero ( $\Delta t$ ),  
wherein the principal channel or the supplementary channel transmit(s) information about a rank within a frame of the structure of the supplementary channel, a sub-frame for which the beginning may be detected, so as to enable synchronization of the supplementary channel at the frame level by detecting the beginning of the next frame as a function of said synchronization at sub-frame level and said information about the rank of said sub-frame.

23. (Currently Amended) A terminal of a cellular radiotelephony system, said terminal comprising:

- a transmitter for transmitting a principal uplink channel,
- a receiver for receiving a principal downlink channel, said principal uplink and said principal downlink forming a symmetric two-directional principal channel particularly for low or medium speed transmission of signalling and control data and information, and
- a receiver for receiving at least one supplementary channel, said supplementary channel being assigned to the downlink only, particularly for transmission of data at high speed, making use of a multicarrier technique for distribution of data in the time / frequency space, and with a sub-frame type structure, said symmetric two-directional principal channel and said supplemental channel being different in nature, and
- a synchronizer, which synchronizes the supplementary channel at sub-frame level, wherein the synchronizer detects a determined time ( $t_0$ ) on the principal downlink channel and obtains the beginning of a sub-frame of the supplementary channel, by offsetting the detected time ( $t_0$ ) by a time interval with a determined duration not equal to zero ( $\Delta t$ ), wherein the principal channel or the supplementary channel transmit(s) information about a rank within a frame of the structure of the supplementary channel, a sub-frame for which the

Art Unit: 2617

beginning may be detected, so as to enable synchronization of the supplementary channel at the frame level by detecting the beginning of the next frame as a function of said synchronization at sub-frame level and said information about the rank of said sub-frame.

24. (Currently Amended) A base station of a cellular radiotelephony system, including:

a receiver, which receives a principal uplink channel,

a transmitter, which transmits a principal downlink channel, said principal uplink channel and said principal downlink channel forming a symmetric two-directional principal channel particularly for low or medium speed transmission of signalling and control data and information,

a transmitter, which transmits at least one supplementary channel, said supplementary channel being assigned to a downlink only, particularly for transmission of data at high speed, making use of a multicarrier technique for distribution of data in the time / frequency space, and with a sub-frame type structure, said symmetric two-directional principal channel and said supplemental channel being different in nature,

means of offsetting the beginning of at least one sub-frame of the supplementary channel, by a time interval with a determined duration not equal to zero ( $\Delta t$ ) from a determined time ( $t_0$ ) on the principal downlink channel, so as to enable synchronization of the supplementary channel at sub-frame level, in a terminal, by detection of said determined time ( $t_0$ ), and adding said time interval ( $\Delta t$ ), wherein the principal channel or the supplementary channel transmit(s) information about a rank within a frame of the structure of the supplementary channel, a sub-frame for which the beginning may be detected, so as to enable synchronization of the supplementary channel at the frame level by detecting the beginning of the next frame as a function of said synchronization at sub-frame level and said information about the rank of said sub-frame.

### ***Reasons for Allowance***

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither anticipate or rendered obvious the subject matter as claimed in the application.

Claim 19 recites a synchronization scheme by synchronizing the supplementary channel at sub-frame level, wherein synchronizing is performed by the terminal and includes the following steps of 1) detecting, by the terminal, a determined time ( $t_0$ ) on the principal downlink channel; and 2) obtaining, by the

Art Unit: 2617

terminal, the beginning of a sub-frame of the supplementary channel, by offsetting the determined time ( $t_0$ ) detected in 1) by a time interval with a determined duration not equal to zero ( $\Delta t$ ), wherein the principal channel or the supplementary channel transmit(s) information about a rank within a frame of the structure of the supplementary channel, a sub-frame for which the beginning may be detected, so as to enable synchronization of the supplementary channel at the frame level by detecting the beginning of the next frame as a function of said synchronization at sub-frame level and said information about the rank of said sub-frame.

The prior art of the record neither anticipate or rendered obvious the features being claimed in claim 19. Claim 19 is therefore allowable. Claims 23 and 24 recite a terminal and a base station that is encompassed by claim 19. They are also allowable.

Claims 2-18, 20-22 depend to their base claims, respectively. They are allowable with the same reason set forth in their base claims.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUN SHEN whose telephone number is (571)270-7927. The examiner can normally be reached on 9:30 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinsong Hu can be reached on 571-272-3965. The fax

Art Unit: 2617

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/QUN SHEN/  
Examiner, Art Unit 2617

/Jinsong Hu/  
Supervisory Patent Examiner, Art Unit 2617